

COMPANY

Texmo Industries

LOCATION

India

SOFTWARE

Autodesk® Simulation CFD®

With Autodesk Simulation CFD, we minimized number of prototypes of pumps. We can verify functionality more exactly than with the real object, review product performance and efficiency squeezing our development cycle. As a result we have significantly enhanced our validation process, resulting in a 30% improvement in our work efficiency.

– Name

Sr. Design Engineer,
Texmo Industries

Texmo Industries

Leading enterprise in India's pump and electric motor industry increase work efficiency by 30%.

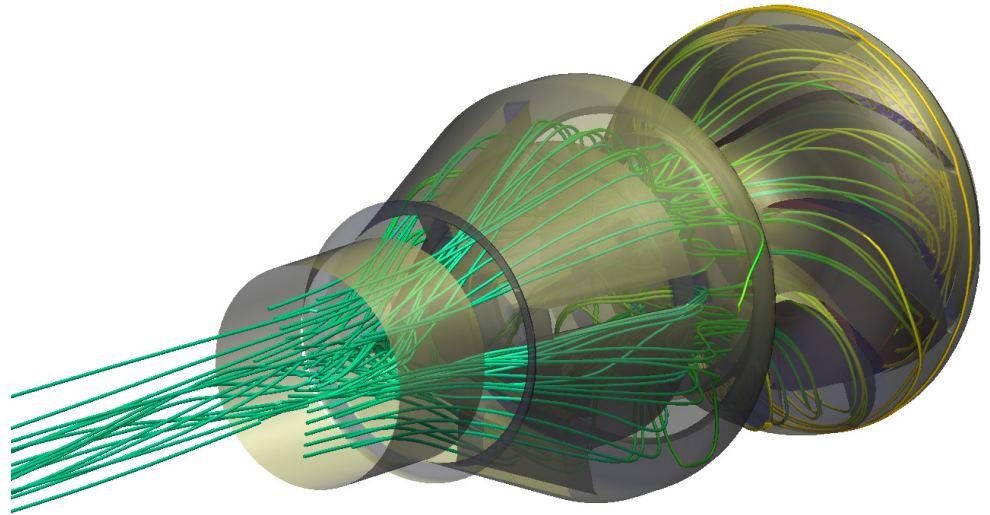


Image courtesy of Texmo Industries

Founded in 1956, Texmo Industries is a leading enterprise in India's pump and electric motor industry with decades of manufacturing history. Company specializes in the corrosion-resistant and erosion-resistant pumps for industrial and agricultural use.

Texmo Industries, primarily started to serve the nascent textile motor market, today has an annual turnover of over seven billion INR, making them the market leader in India. Company's product line is divided into several series covering many installation sizes and pumping capacity. The state-of-the-art Texmo Technical Centre at Coimbatore has specially trained, highly qualified employees equipped with latest technologies, tools and hardware. Today, company employs over 2000 people and has a wide network of company branches and dealers in the country.

Challenges:

Owing to the demand from domestic market based on customer requirements the Texmo Industries is currently developing a new range of pumps that would expand their product portfolio. "Pumpsets are the life line of an Indian farmer, solves the ground water requirements in agriculture sector. We are continuously expanding our product portfolio by developing a new range of pumps that would cater our customer requirements" said Sr. Design Engineer, Texmo Industries

While working on developing a new submersible pump the company faced the tremendous pressure to bring out high performance and improve efficiency. "Design and performance prediction process is a difficult task, mainly due to the large number of free geometric parameters the effect of which cannot be directly evaluated. All trial-and-error process needed to achieve precision targets adds to significant cost and time reducing the profit margins of the pump manufacturers" Explains Sr. Design Engineer.

Key Benefits:

Texmo Industries required very high analysis reliability, as well as an easy to- use solution to meet its tight timelines. After carefully reviewing the various options, company made a decision to deploy Autodesk Simulation CFD.

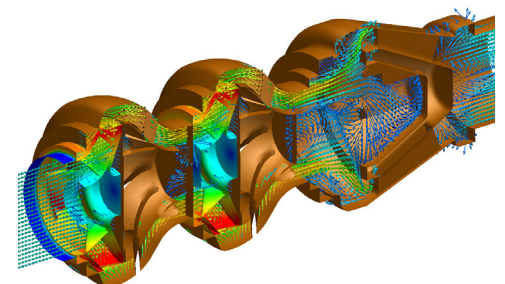


Image courtesy of Texmo Industries

The flow analysis inside submersible pump is highly complex due to presence of complex flow structure involving turbulence, rotation, secondary flow, unsteadiness and sometimes cavitation.

Application of Autodesk Simulation CFD to pump design and analysis helps us to predict performance and efficiency virtually thus reducing the product development time and cost

–Name
Sr. Design Engineer
Texmo Industries

“Speed advantage with Autodesk Simulation CFD was evident during the evaluation process; it has actually turned out to be even better than it appeared at that time. The tool also offers advance analysis environment with the CAD-neutral and solver-independent technology” said Sr. Design Engineer

The Solutions:

To improve the efficiency of submersible flow pump, Autodesk Simulation CFD is one of the advanced tools used in the pump industry. A detailed CFD analysis was done to predict the flow pattern inside the impeller which is an active pump component. From the results of CFD analysis, the velocity and pressure in the outlet of the impeller is predicted.

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Result:

Texmo Industries investment in Autodesk’ technology has generated impressive results. The design process has significantly improved as the company’s development teams are now able to produce far more accurate designs. Designers are able to analyze and resolve problems, as well as to make better design decisions. This translates into higher quality products. Soon, Texmo Industries will launch the new series of Submersible pumps in India.

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Image courtesy of Texmo Industries